

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

Docket No. 50325-0819 Express Mail Label # EV323354870US

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Date of Deposit: September 15, 2003

Fig. 1 A

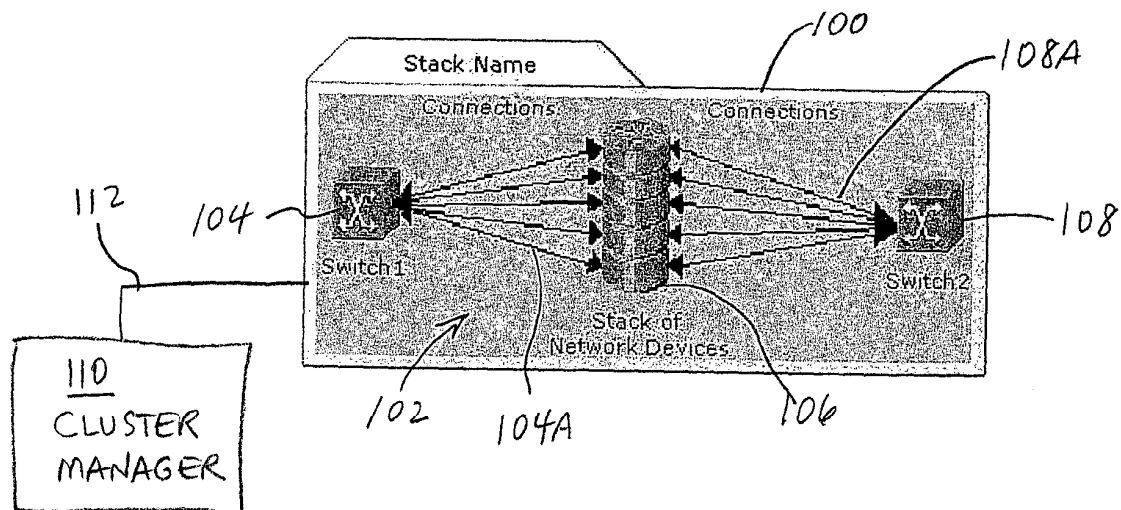


Fig. 3

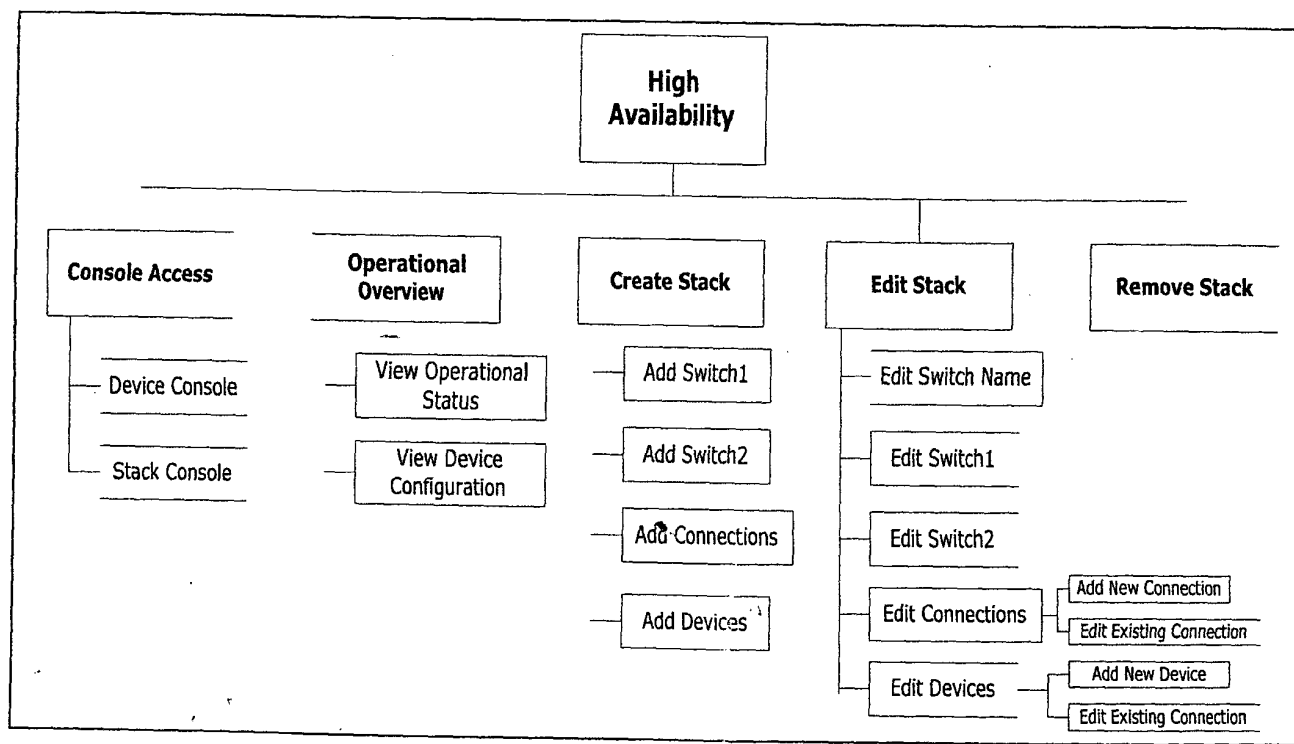
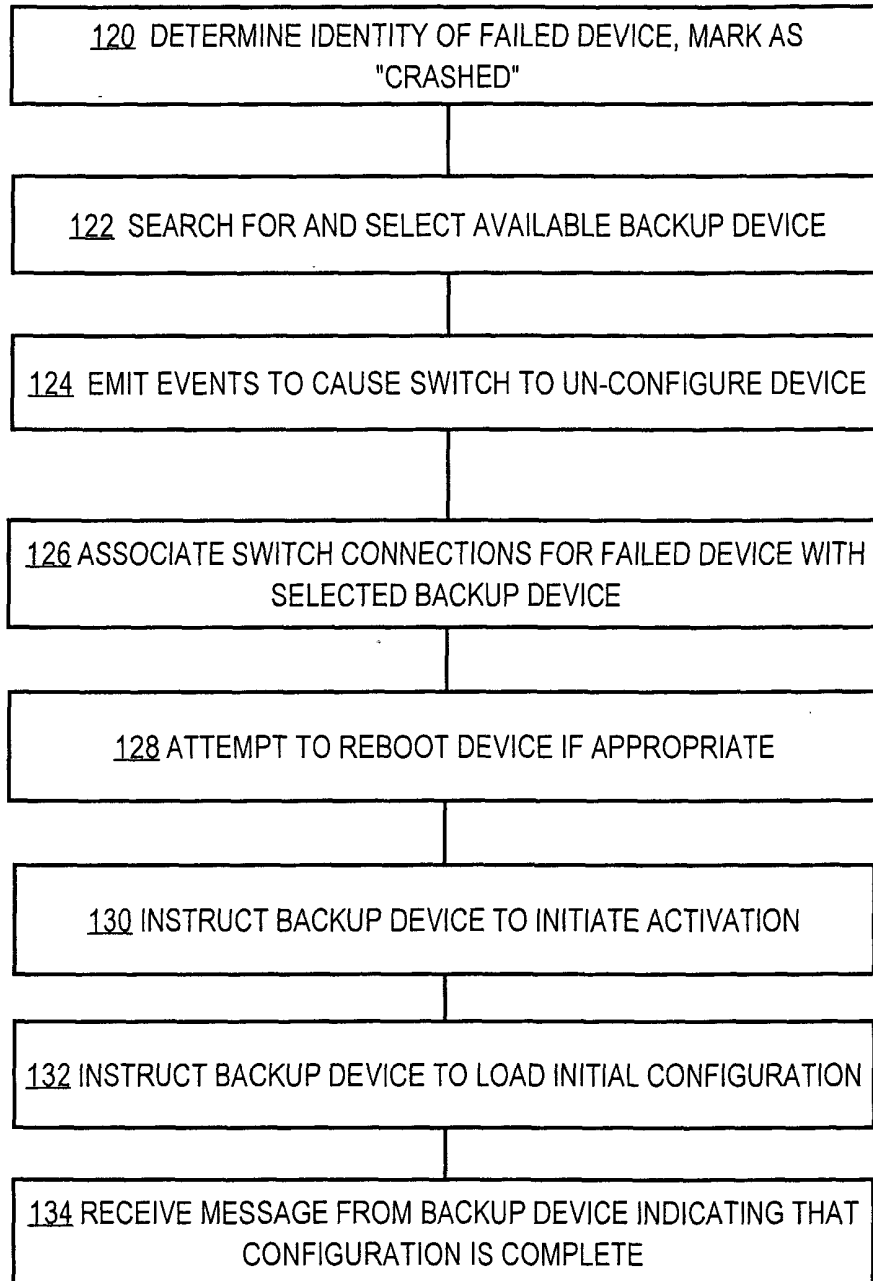


Fig. 1B



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

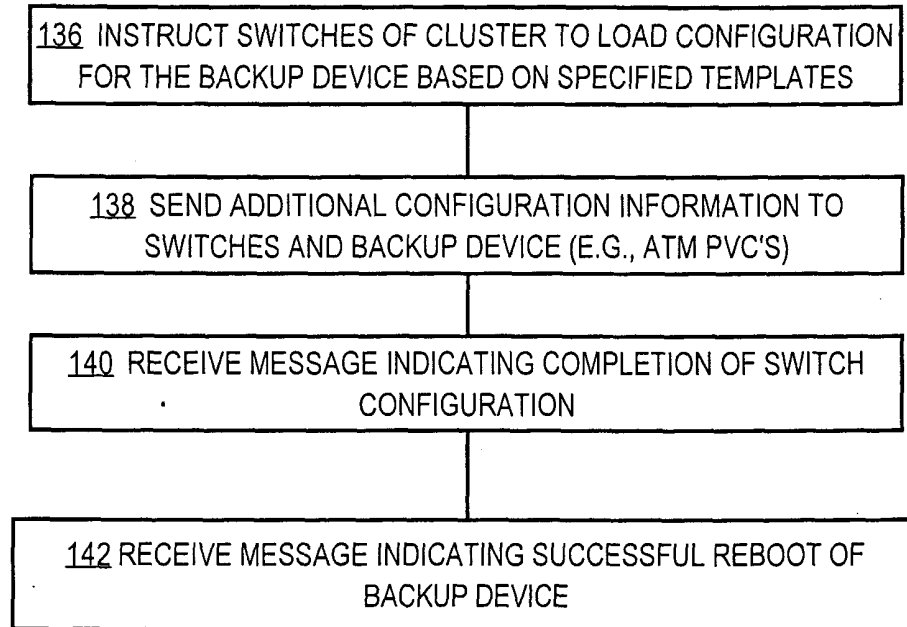
Inventor(s): Arnold Stamler, et al.

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Fig. 1C



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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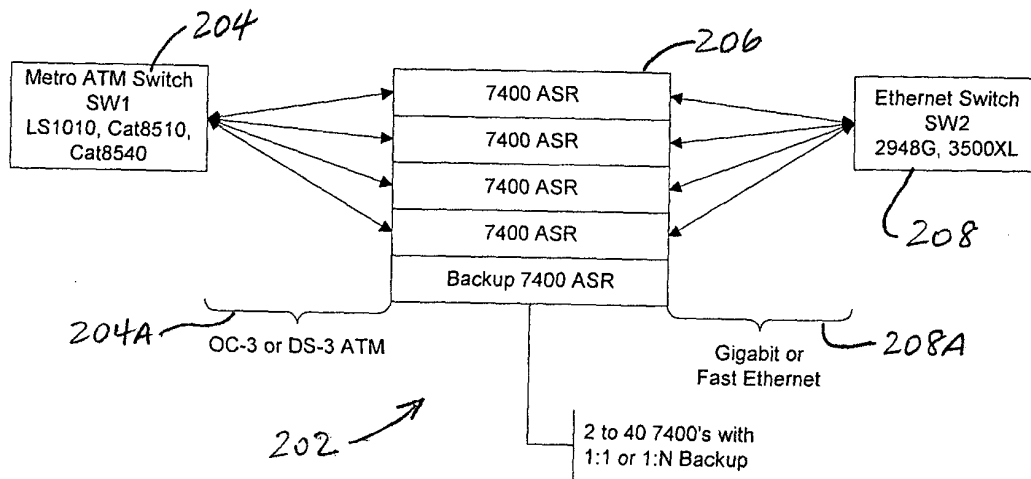
Inventor(s): Arnold Stamler, et al.

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Fig. 2



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

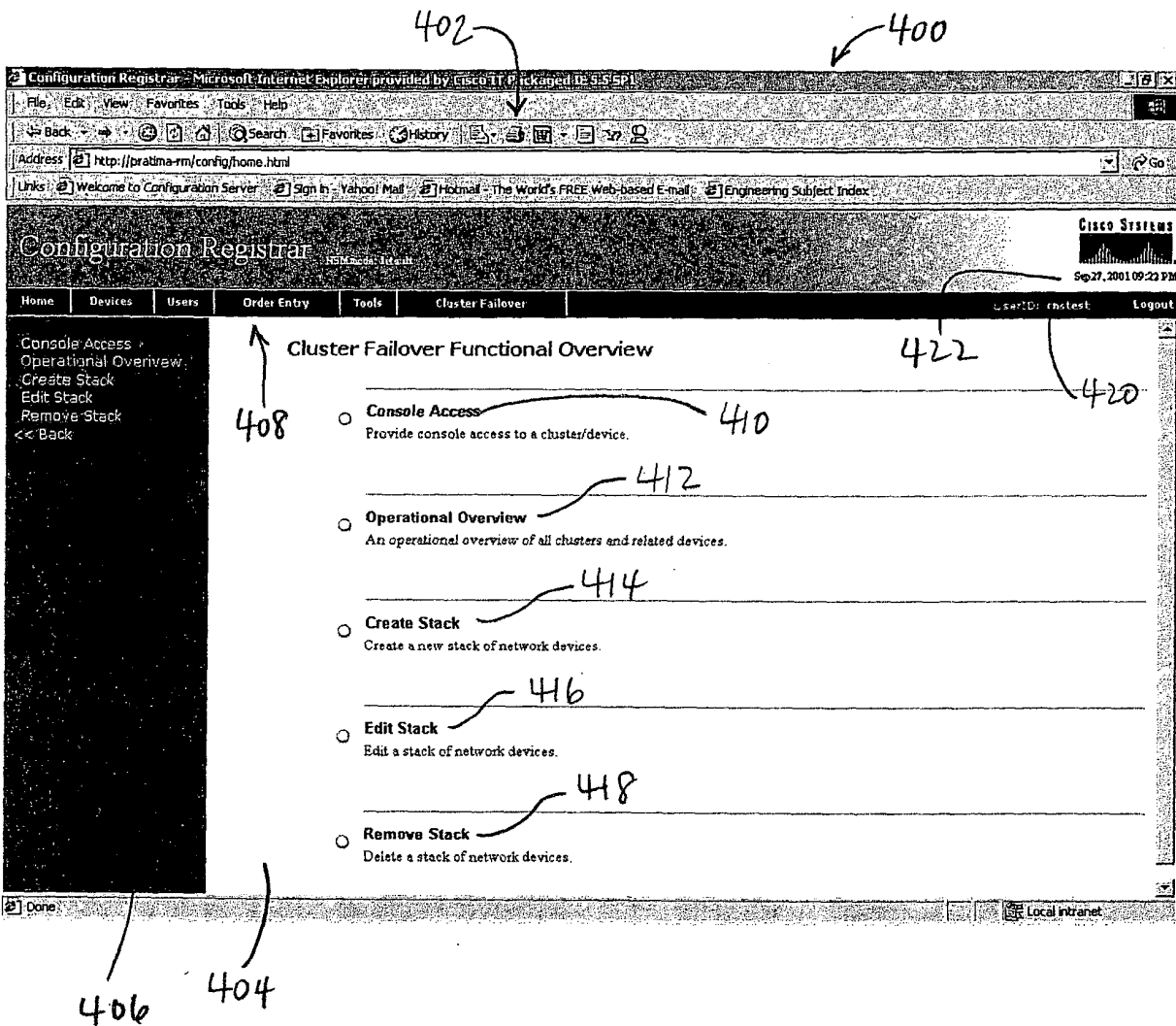
Inventor(s): Arnold Stamler, et al.

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Fig. 4



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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Fig. 5

Configuration Registrar - Microsoft Internet Explorer provided by Cisco IT Packages IE5.5 SP3

File Edit View Favorites Tools Help

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Address http://praline-rm/config/home.html Go

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Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover User ID: cnetest Logout

Console Access
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Creating Stack

Please enter a stack name to begin creating a stack. Click "Ok" to add switches, devices, and connections to this stack.

Stack Name (required)	Stack1 504
Mechanism for Assigning Connections	<input checked="" type="radio"/> Load balancing 506 <input type="radio"/> Fill each device
Number of Devices Reserved as Backup (required)	2 508

☒ Reboot failed devices and place in backup pool after failover.

514

510

512

502

Ok Reset

Done Local Intranet

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Fig. 6

Configuration Registrar: Microsoft Internet Explorer provided by Cisco IT Packaged IE S/S SP1

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Configuration Registrar

Cisco Systems

Sep 28, 2001 06:03 PM

Home Devices Users Order Entry Tools Cluster Failover UserID: cnstest Logout

Stack: Stack1

Console Access
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Stack Name: Stack1

Connections

Switch1

Stack of Network Devices

Switch2

608

614A

612

610

604

607A

609A

614B

Please select a component in the imagemap above or in the checklist below to add or edit. Each stack object consists of the following components:

1: Stack Name: Stack1	
2: Switch1	
3: Switch2	
4: Network Devices	ADD EDIT REMOVE
5: Connections	ADD EDIT REMOVE

607

609

606

602

619

Activate Save Exit

Done Local Intranet

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

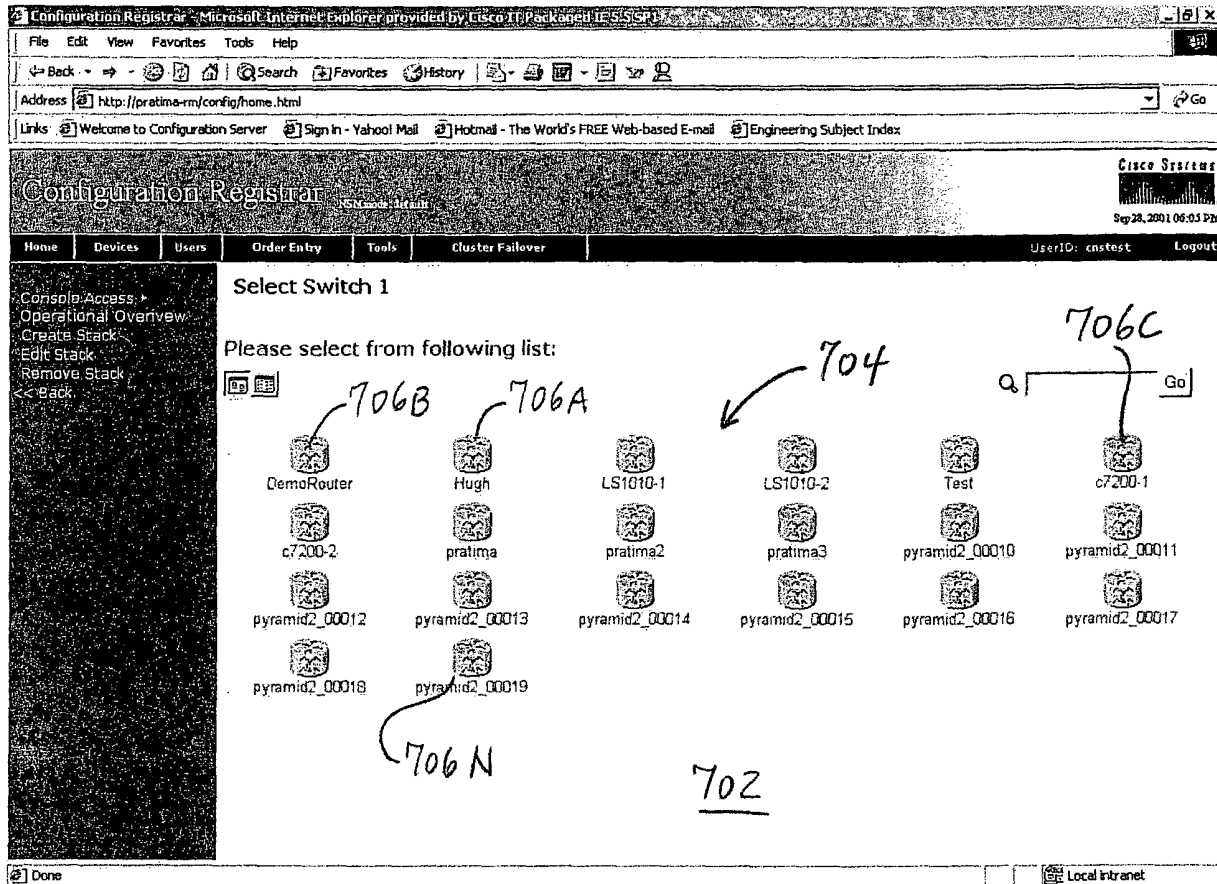
Inventor(s): Arnold Stamler, et al.

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Fig. 7



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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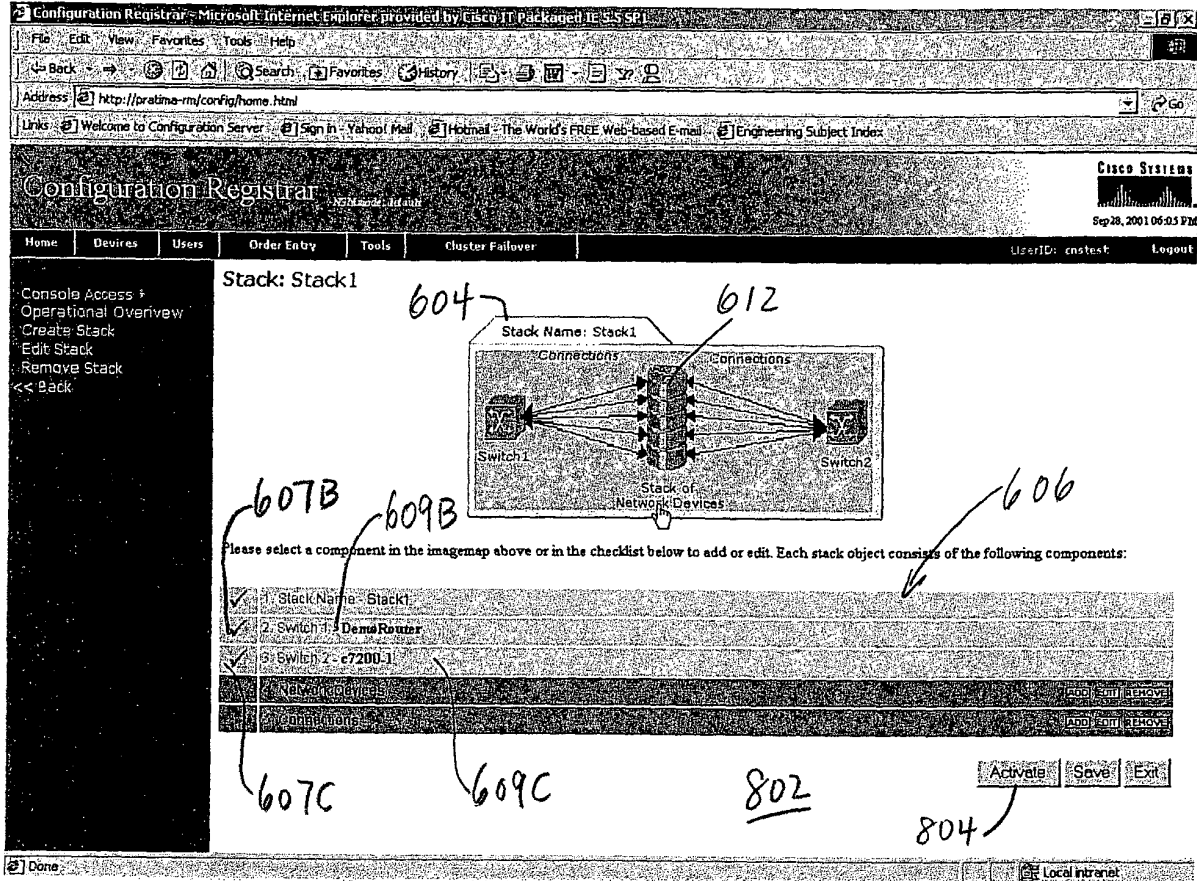
Inventor(s): Arnold Stamler, et al.

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Fig. 8



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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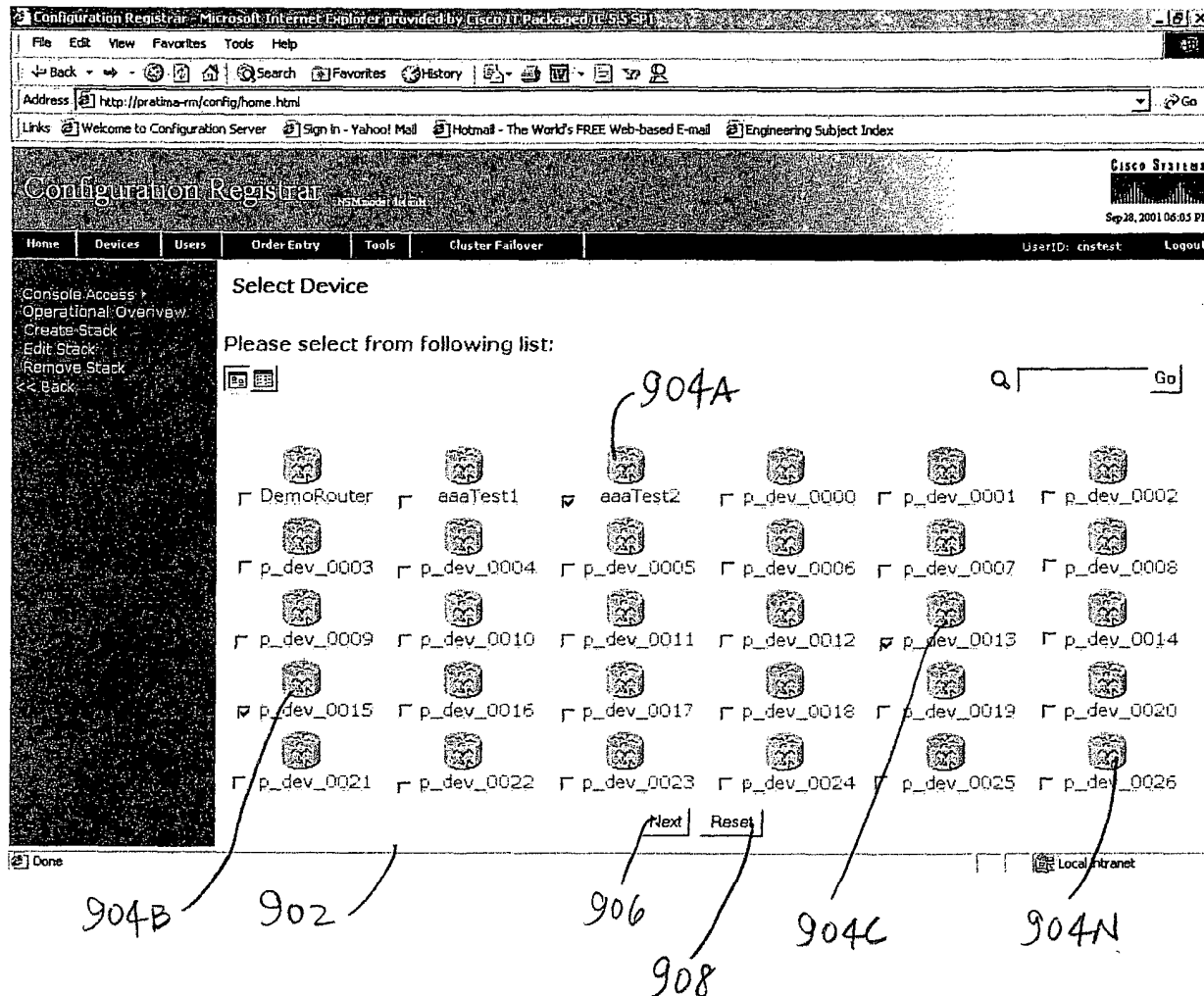
Inventor(s): Arnold Stamler, et al.

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Fig. 9



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Fig. 10

1000

1002

Configuration Registrar - Microsoft Internet Explorer provided by Cisco IE Packaged IE 5.5 SP1

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Configuration Registrar

Cisco Systems

Sep 28, 2001 06:03 PM

Home Devices Users Order Entry Tools Cluster Failover

User ID: cnstest Logout

Console Access
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Add Selected Devices to Stack1

1004

Template File Name for Configuring Switch 1: (required) Template1.dgtp 1006

Template File Name for Unconfiguring Switch 1: (required) Template2.dgtp 1012A

Template File Name for Configuring Switch 2: (required) Template3.dgtp 1008

Template File Name for Unconfiguring Switch 2: (required) Template4.dgtp 1010

Device Name: DemoRouter

Switch1

Interface Name: 1014A

Option1: 1016A

Option2: 1018

Option3: 1012A

Telnet Information:

Maximum Number of Connections Allowed: 1020

Switch2

Interface Name: 1014B

Option1: 1016B

Option2: 1018

Option3: 1012B

Device Name: Test

Switch1

Interface Name: 1012B

Switch2

Interface Name: 1012B

Done Local intranet

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Fig. 11

Configuration Registrar - Microsoft Internet Explorer, provided by Cisco IT Packaged IE-SS5SP1

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Configuration Registrar

Cisco Systems
Sep 28, 2001 06:03 PM

Home Devices Users Order Entry Tools Cluster Failover

UserID: cnstest Logout

Stack: Stack1

Console Access
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Stack Name: Stack1

Connections

Switch1

Stack of Network Devices

Switch2

Connections

Please select a component in the imagemap above or in the checklist below to add or edit. Each stack object consists of the following components:

<input checked="" type="checkbox"/>	1. Stack Name: Stack1	
<input checked="" type="checkbox"/>	2. Switch 1: DemoRouter	
<input checked="" type="checkbox"/>	3. Switch 2: c7200-1	
<input checked="" type="checkbox"/>	4. Network Devices: 5 devices	ADD EDIT REMOVE
<input checked="" type="checkbox"/>	5. Connections	ADD EDIT REMOVE

Activate Save Exit

Done Local Intranet

604

606

607D

609D

602

1102

1104

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Fig. 12

Configuration Registrar - Microsoft Internet Explorer provided by Cisco IT Packaged IE 5.5 SP1

File Edit View Favorites Tools Help

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Configuration Registrar

Cisco Systems
Sep 27, 2001 09:22 PM

Home Devices Users Order Entry Tools Cluster Failover UserID: cnstest Logout

Console Access
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Add New Connection to Stack1

Connection Number (required) 1202

Attribute 1 1204

Attribute 2 1206

Attribute 3 1208

Attribute 4 1210

Method of Connection Provisioning:
☒ Immediate
☐ Upon PVC Activation

Template File Name for Configuring Network Device: 1212
Template1.cfgtpl

Template File Name for Unconfiguring Network Device: 1214
Template2.cfgtpl

Template File Name for Configuring Switch 1: 1216
Template3.cfgtpl

Template File Name for Unconfiguring Switch 1: 1218
Template4.cfgtpl

Template File Name for Configuring Switch 2: 1220
Template5.cfgtpl

Template File Name for Unconfiguring Switch 2: 1222
Template6.cfgtpl

1200 1211

Ok Add Another Reset

1224 1226 1228

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Fig. 13

Configuration Registrar - Microsoft Internet Explorer provided by Cisco IT Packaged: IE 5.5 SP1

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Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

UserID: castest Logout

Console Access >
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Stack: Stack1

Please select a component in the imagemap above or in the checklist below to add or edit. Each stack object consists of the following components:

<input checked="" type="checkbox"/>	Stack Name - Stack1	
<input checked="" type="checkbox"/>	Switch 1 - DemoRouter	
<input checked="" type="checkbox"/>	Switch 2 - c7200-1	
<input checked="" type="checkbox"/>	Network Devices - 5 devices	ADD EDIT REMOVE
<input checked="" type="checkbox"/>	Connections - 4 connections	ADD EDIT REMOVE

Activate Save Exit

Done Local intranet

Handwritten labels: 608, 614A, 612, 614B, 604, 610, 606, 621, 607E, 609E, 602, 619, 804, 1102

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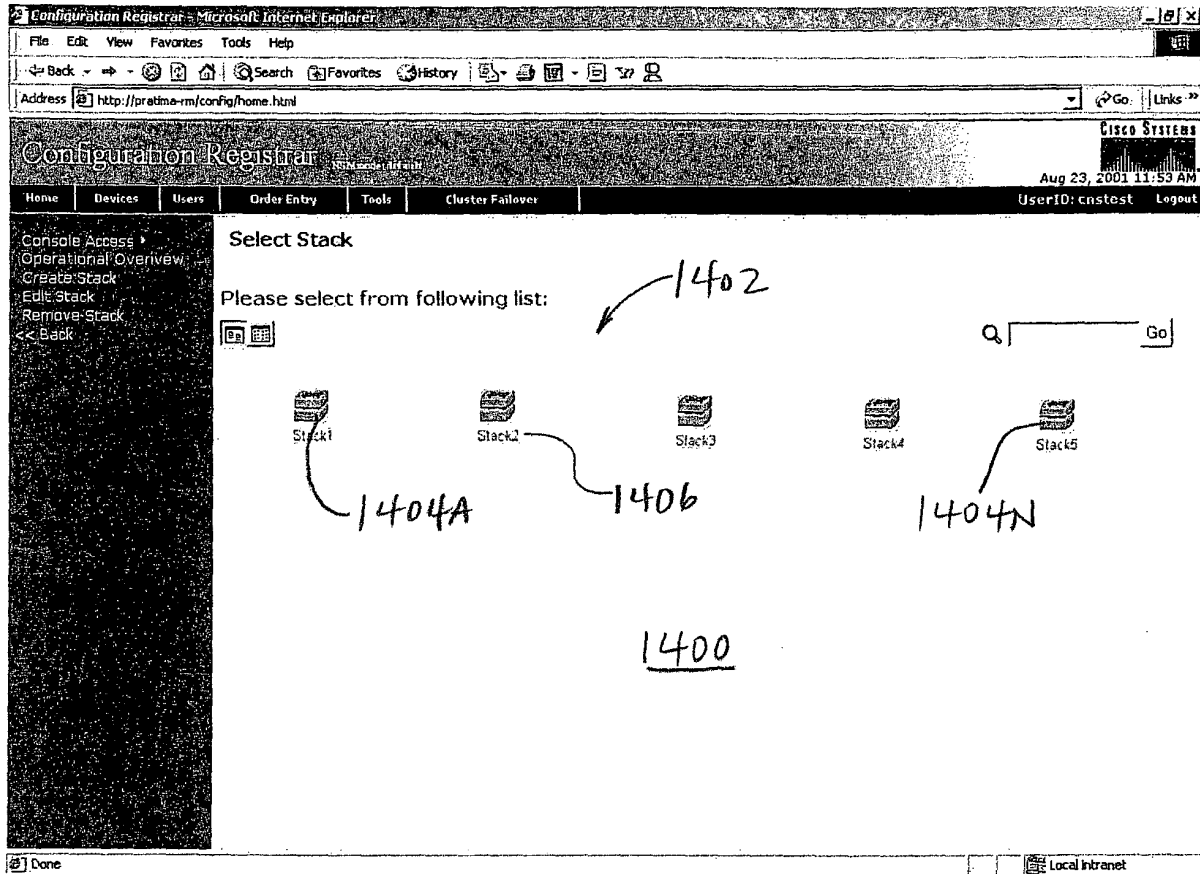
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Fig. 14



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Fig. 15

Configuration Registrar - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Address http://pritime-rm/config/home.html Go Links

Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

Aug 23, 2001 11:53 AM UserID: cnstest Logout

Console Access
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Stack: Stack1

Warning: This stack is currently inactive. To activate this stack, please press this button >>

Stack Name: Stack1

Connections Connections

Switch1 Stack of Network Devices Switch2

Please select a component in the imagemap above or in the checklist below to add or edit. Each stack object consists of the following components:

✓ 1. Stack Name - Stack1	
✓ 2. Switch 1 - DemoRouter	
✓ 3. Switch 2 - c7200-1	
4. Network Devices	<input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Remove"/>
5. Connections	<input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Remove"/>

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

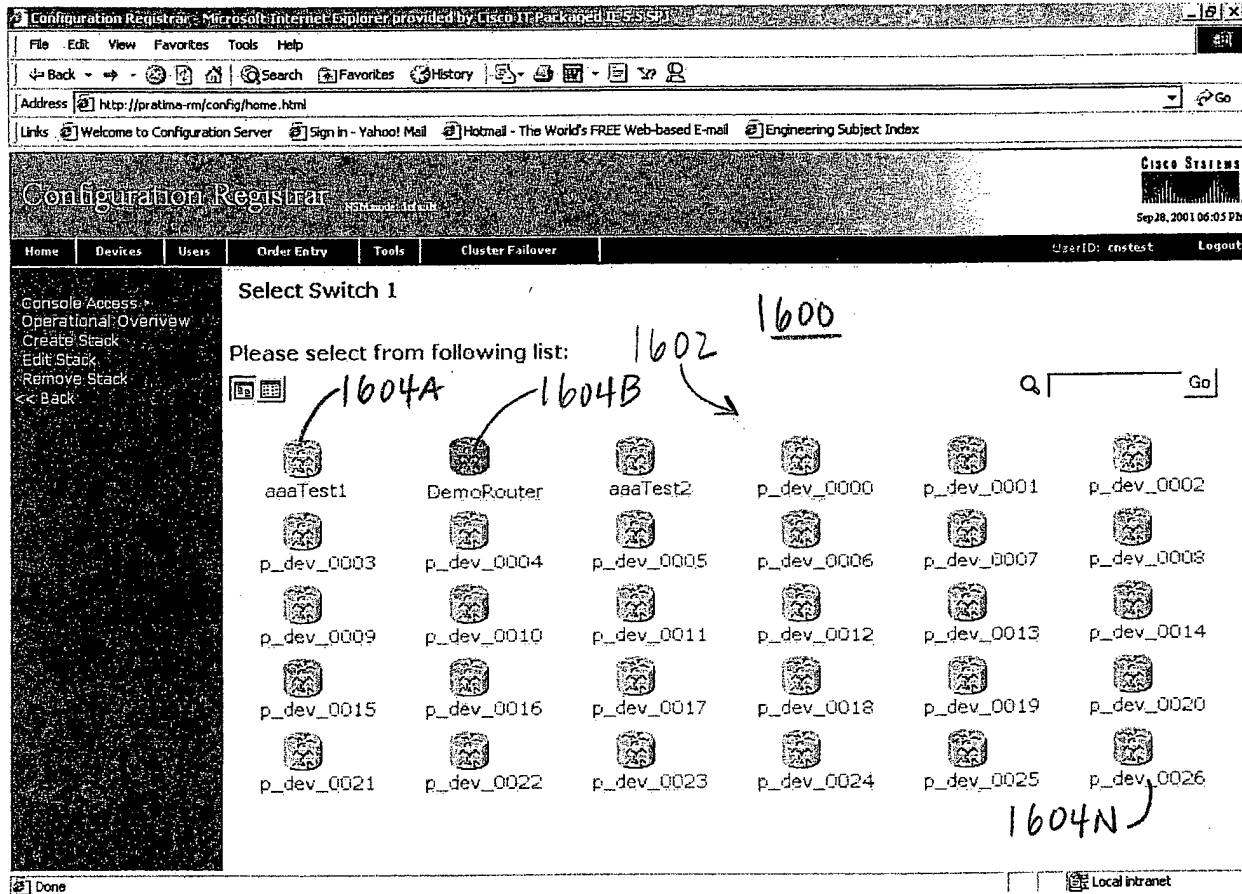
Inventor(s): Arnold Stamler, et al.

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Fig. 16



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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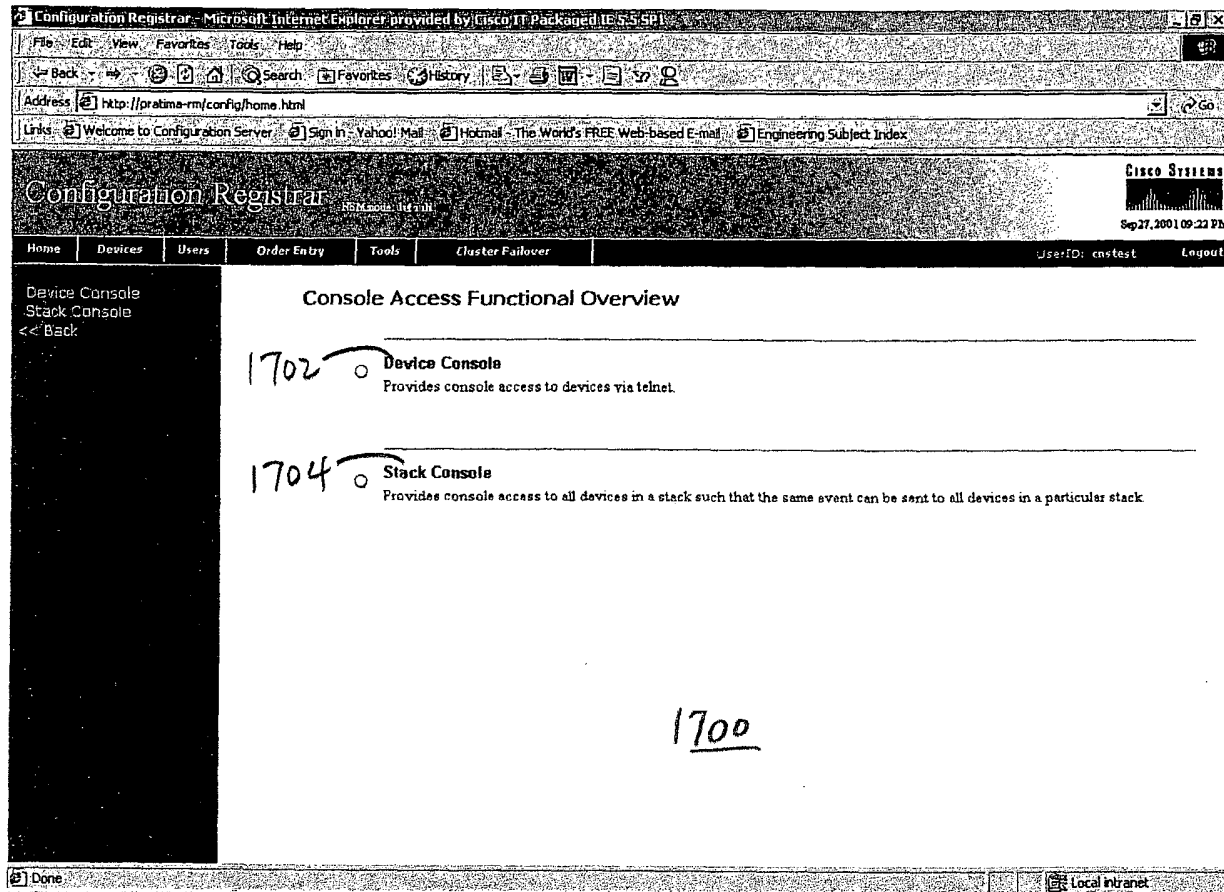
Inventor(s): Arnold Stamler, et al,

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Fig. 17



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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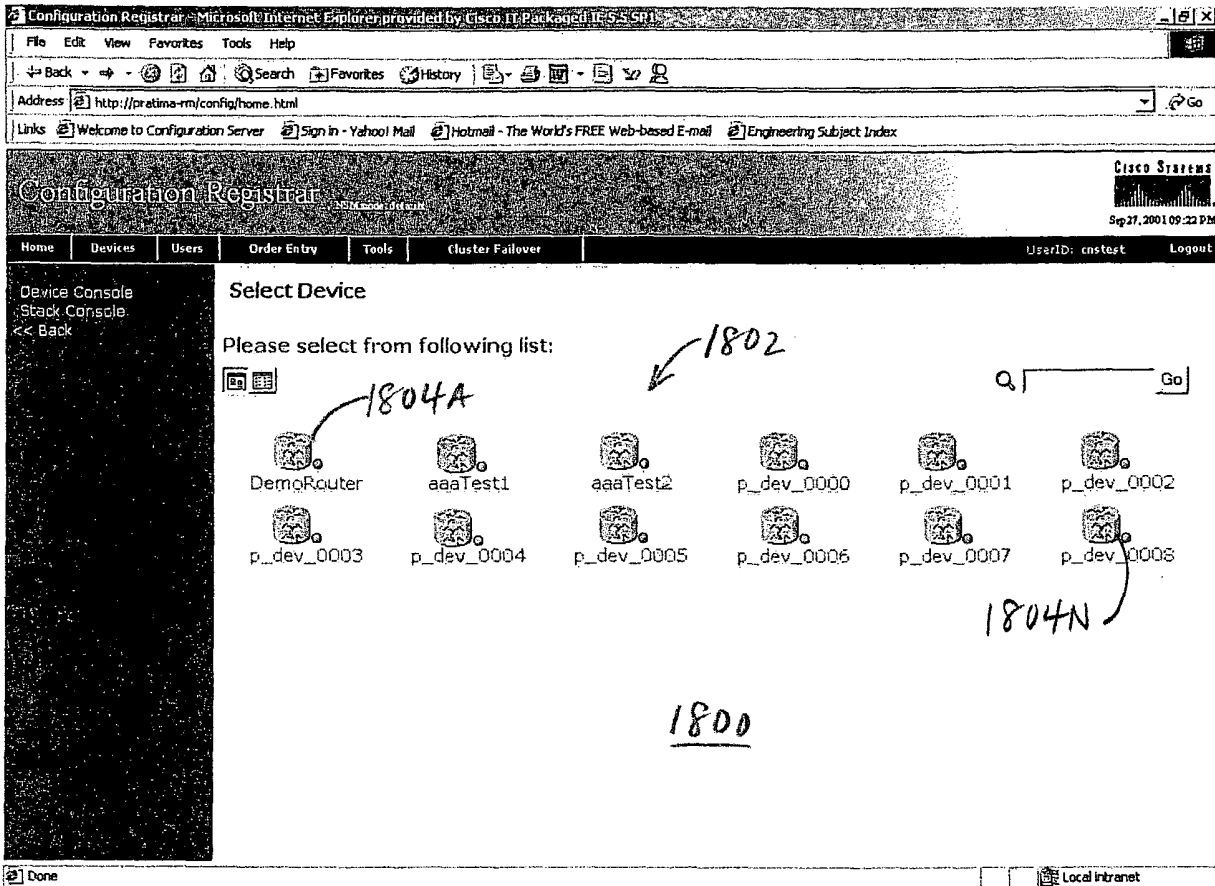
Inventor(s): Arnold Stamler, et al.

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Fig. 18



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Inventor(s): Arnold Stamler, et al.,

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Fig. 19

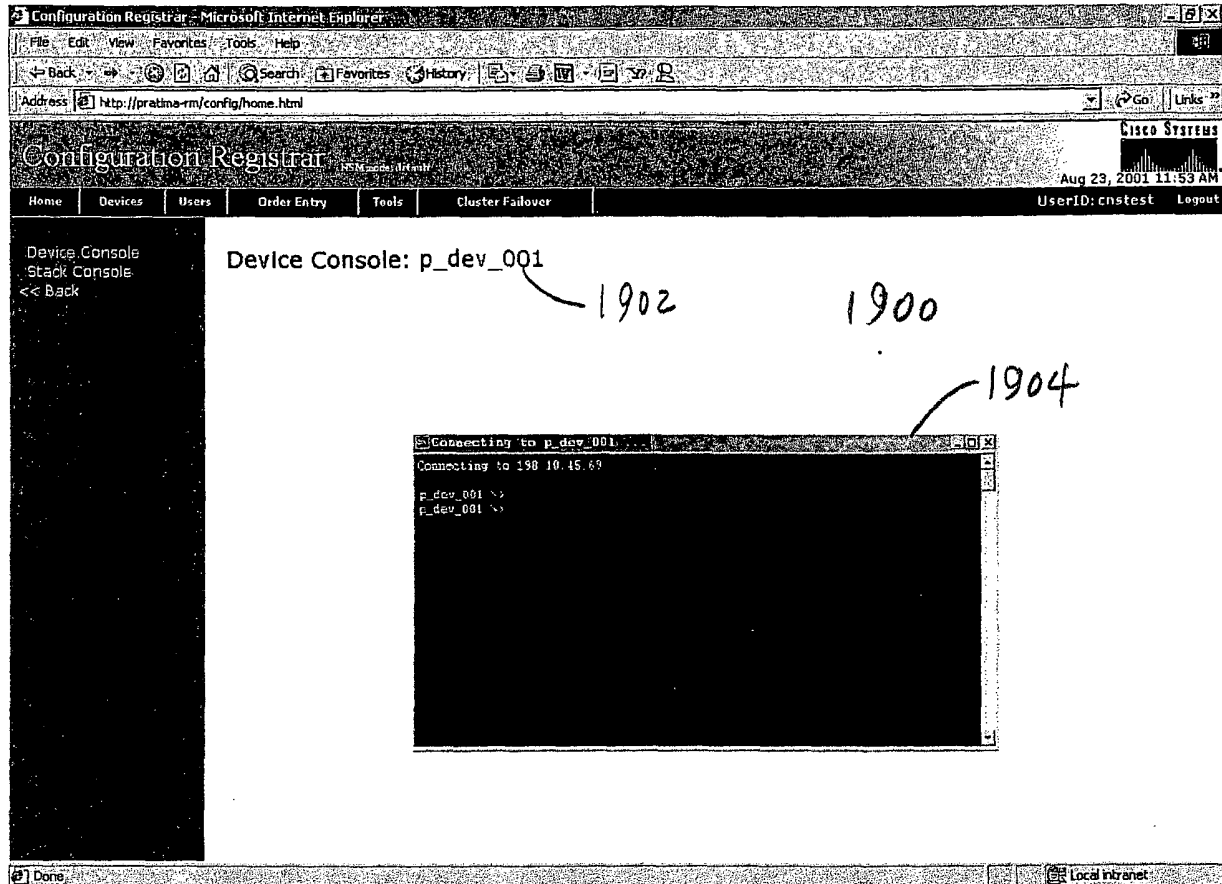
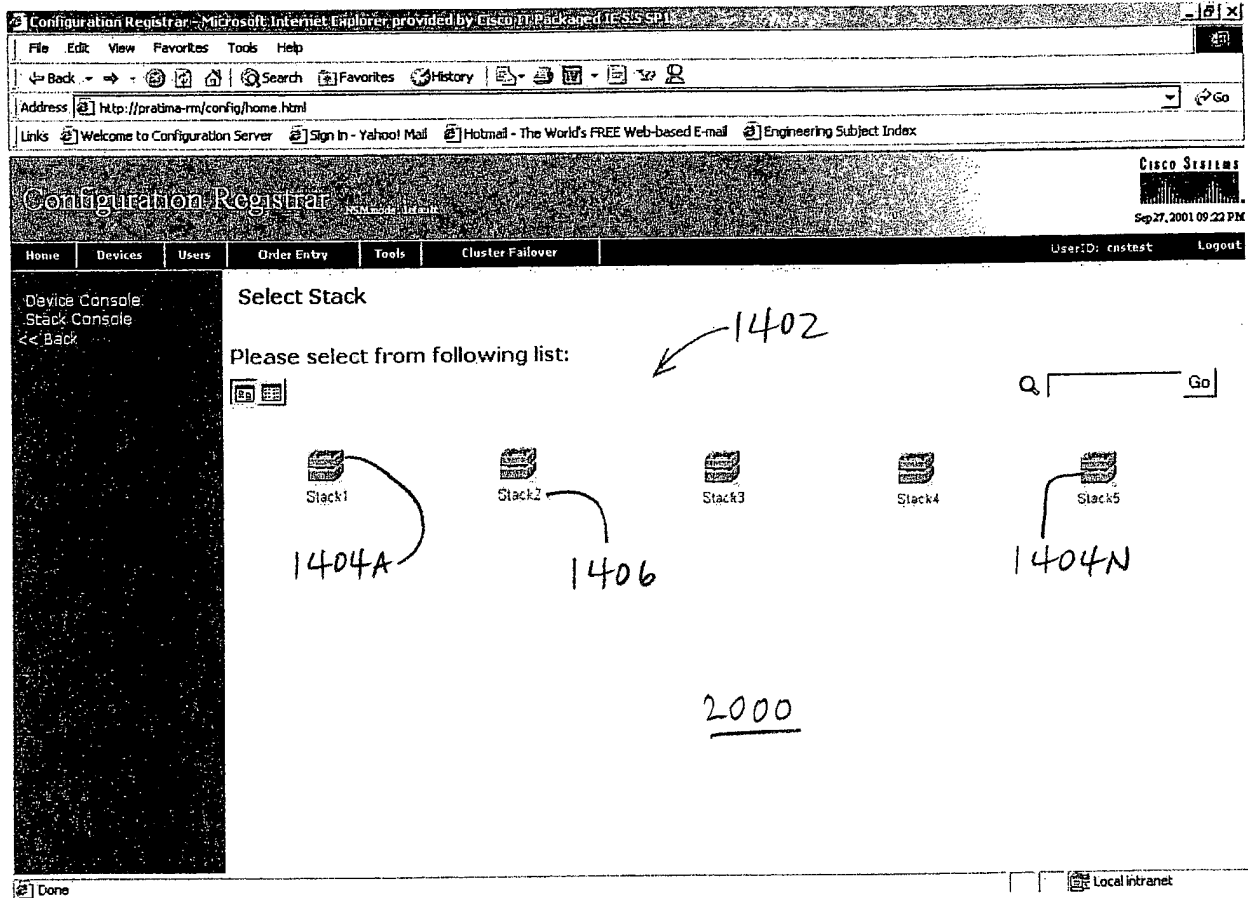


Fig. 20



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
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Fig. 21

Configuration Registrar: Microsoft Internet Explorer provided by Cisco IT, Packaged IE 5.5 SP1

File Edit View Favorites Tools Help

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Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

Device Console Stack Console << Back

Console Access to Stack Stack2

Allows you to send the same command to all the device on this stack.

Event Log

Date/Time	Type	Subject name	Message
7/18/01 3:33:35 PM	[other]	cisco.cns.config.cslog	n/a
7/18/01 3:33:35 PM	[other]	cisco.cns.config.cslog	n/a
7/18/01 3:33:35 PM	[other]	cisco.cns.config.cslog	n/a
7/18/01 3:37:11 PM	[other]	cisco.cns.config.cslog	n/a
7/18/01 3:37:11 PM	[other]	cisco.cns.config.cslog	n/a
7/18/01 3:37:11 PM	[other]	cisco.cns.config.cslog	n/a

Command: Send

2112 Switch View of Event Log: Formatted

2102

2102A

2104 2106 2108 2110

2102N 2100

2114 2116

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Fig. 22

Configuration Registrar - Microsoft Internet Explorer provided by Cisco ITC Packaged (10/15/01)

File Edit View Favorites Tools Help

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Configuration Registrar Cisco Systems
Sep 27, 2001 09:22 PM

Home Devices Users Order Entry Tools Cluster Failover UserID: cnstest Logout

Device Console
Stack Console
<< Back

Console Access to Stack Stack2 2112

Allows you to send the same command to all the device on this stack.

Execution log

9/19/01 11:54:45 PM - cisco.cns.exec.cmd.c7200-2
show running
9/19/01 11:54:46 PM - cisco.cns.exec.rsp.c7200-2
Building configuration...
Current configuration : 1296 bytes
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname c7200-2
!
enable password cisco
!
ip subnet-zero
!

2202

Command: 2100 Send

2114 2116

Done Local intranet

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

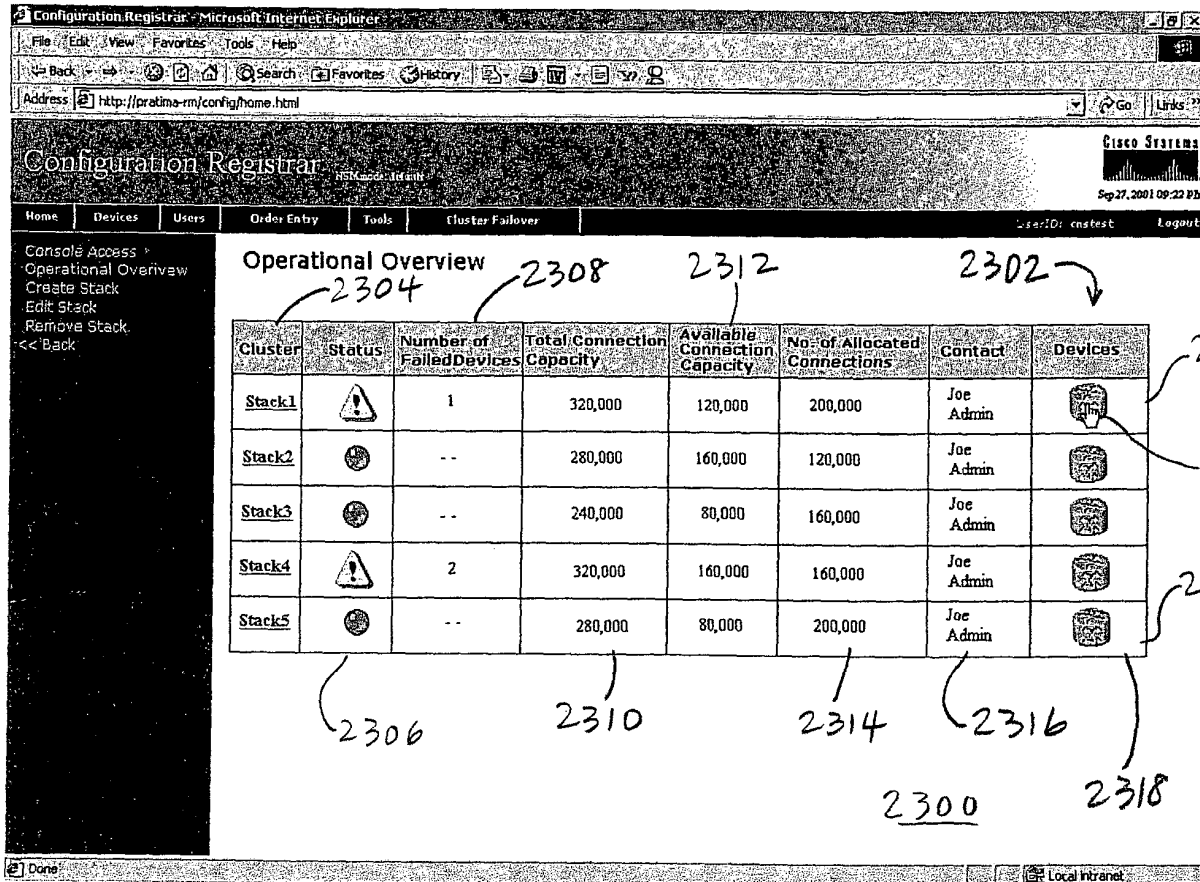
Inventor(s): Arnold Stamler, et al:

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Fig. 23



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

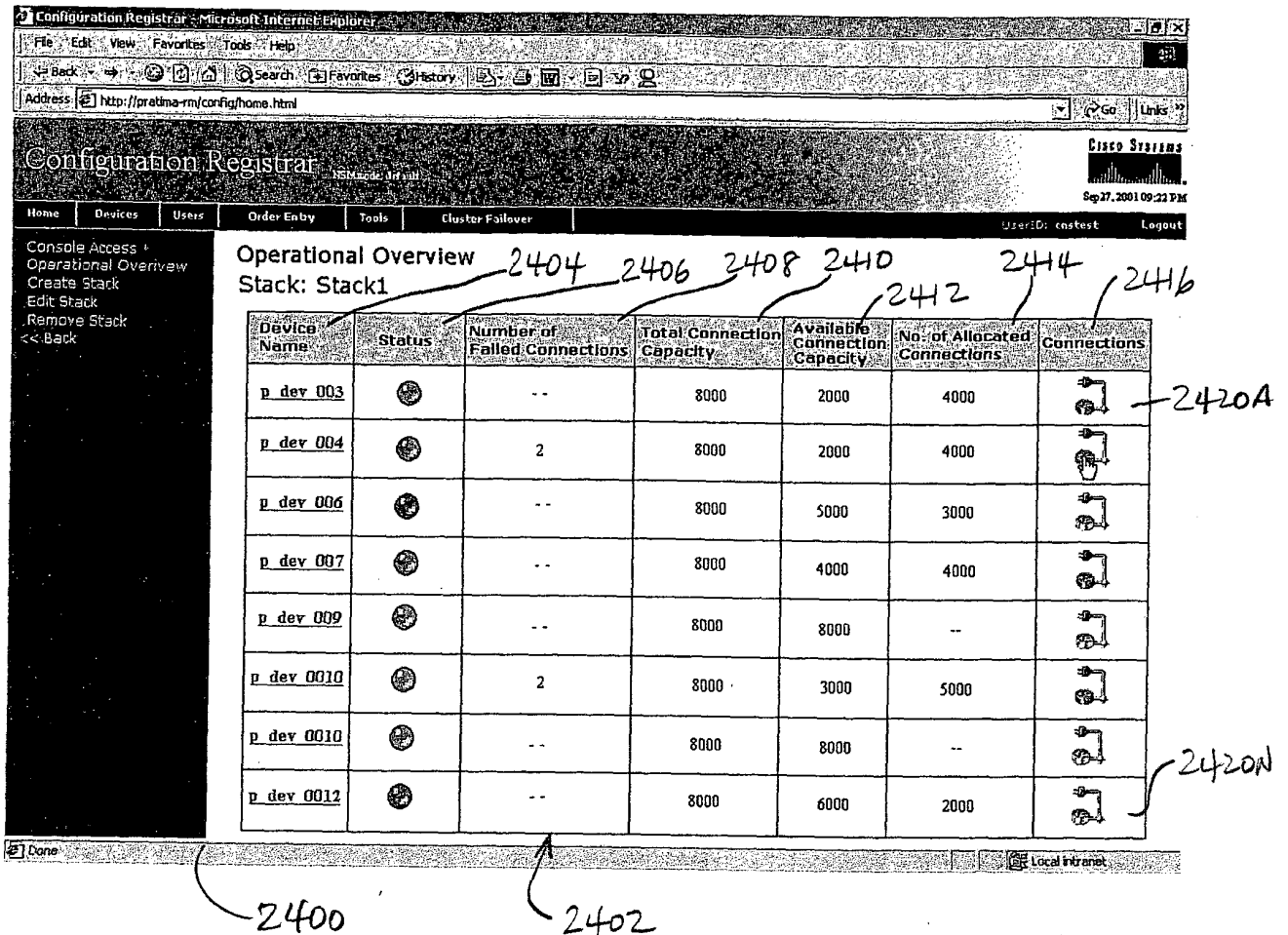
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Fig. 24



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Fig. 25

Configuration Registrar: Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

Console Access >
Operational Overview
Create Stack
Edit Stack
Remove Stack
<< Back

Operational Overview

Stack: Stack1 Switch1: p_dev_004

Failed Connections View

Connection Name	Attribute 1	Attribute 2	Attribute 3	Attribute 4	Status
Connection1					!
Connection2					!

2500

2504

2506

2508

2502

2510

2512

2516

2514

Done Local intranet

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Fig. 26

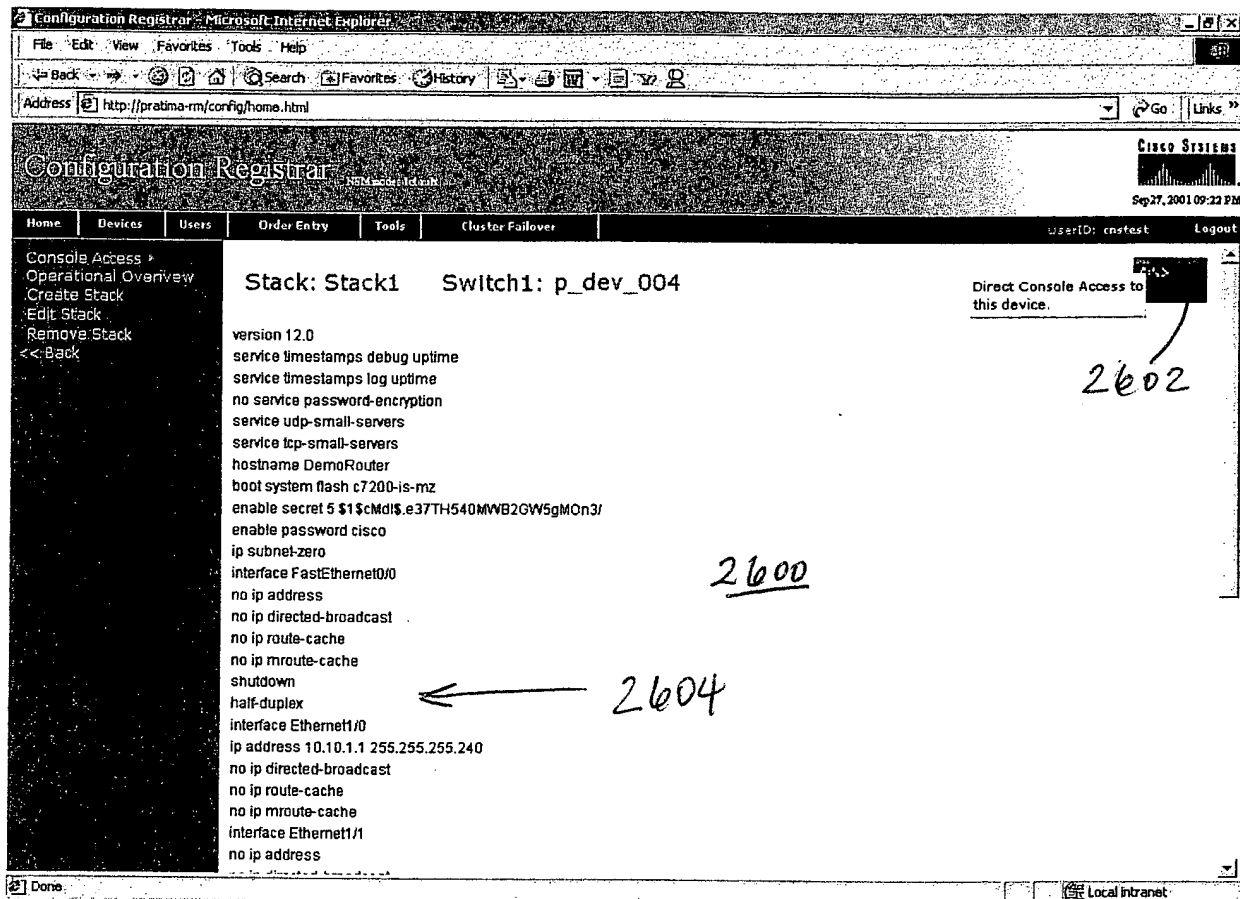


FIG. 27

